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IN THE

Supreme Court of the United States

OCTOBER TERM, 1949.

No. [redacted]105

THE DAVISON CHEMICAL CORPORATION,
Petitioner,

vs.

JOLIET CHEMICALS, INC., DES PLAINES OIL COMPANY, JOLIET CHEMICALS, LTD., AND KENNETH F. NASH,

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE COURT OF APPEALS FOR THE SEVENTH CIRCUIT AND BRIEF IN SUPPORT THEREOF.

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PETITION FOR WRIT OF CERTIORARI TO THE COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

To the Honorable the Supreme Court of the United States:

Petitioner prays for a writ of certiorari to the United States Court of Appeals for the Seventh Circuit to review a final judgment of that Court affirming the dismissal of a suit for patent infringement by summary judgment.

Summary Statement of Matter Involved:

Plaintiff brought suit to enjoin the infringement of United States Letters Patent 1,900,859, referred to herein as the Connolly patent, for a process for the manufacture of silica gels. The District Court entered a summary judgment dismissing the suit and holding the patent invalid for

want of invention in view of a prior patent 1,297,724, referred to herein as the Patrick patent (R. 54). The Court of Appeals for the Seventh Circuit found that the Connolly patent was not anticipated by Patrick but that it was void as the mere application of a law of nature and affirmed the judgment of the District Court (R. 64, 68).

The Question Presented:

Can there be a valid patent for a process? Every process embodies a scientific principle or law of nature and the means of applying that principle or law. Is the principle or law to be separated from the inventive concept and the invention tested solely by the ingenuity involved in the means of application? If so, all process patents must fail, because the principle can always be so expressed as to leave the means obvious to those skilled in the field.

The Patent:

Silica gel is an artificial product, not found in nature. It is a hard, transparent substance with ultra microscopic pores. Because of its ability to adsorb moisture from the air, it is used extensively as a dessicant (R. 51). For certain uses it is important that the pores be very small, for other uses larger pores are desired (R. 44). Four distinct grades of the product are specified by the Army and Navy with rigid specifications for each grade (R. 51, 52). If the pores are too small or too large the gel will not meet these specifications (R. 46). Prior to Connolly, all silica gels were ununiform, the pores were too fine and the product was unsatisfactory for use (R. 45, 46). Connolly's patent produced the first commercially usable product.

The manufacture of silica gel is a complicated chemical process in which sodium silicate is mixed with an acid under violent agitation. The resulting product is allowed to set

and is then broken into small pieces, washed for 36 to 48 hours to free it from acid and salt, and dried at a specified temperature (R. 31, 37).

Connolly discovered that the temperature of the wash water could be used to control the density or the size of the pores of the silica gel. The Court of Appeals concedes that this discovery was original with Connolly. It enabled him to convert failure into success. The patent is therefore pioneer in character.

Theory of the Court of Appeals:

The Court of Appeals conceded that Connolly was the first to discover that the size of the pores could be controlled by the temperature of the water used to wash the gel after it had set. In effect, that Court held that this discovery was no part of the inventive concept and that all scientific principles or laws of nature are in the public domain even though as yet unknown to man. The Court thus tested the patent after first endowing some other skilled scientist with knowledge of Connolly's basic discovery. It then found that, endowed with such knowledge, this skilled scientist would have had no difficulty in evolving the process of the patent. Under such a testing formula invalidity was inevitable.

Reasons for Allowance of Writ:

1. The case is of fundamental importance in the law of patents. The effect of the decision of the Court of Appeals is to deny the validity of any patent for a chemical process and if the argument of the Court is carried to its logical conclusion, to deny the validity of any process patent and most, if not all, product and mechanical patents.

2. The decision of the Circuit Court of Appeals is inconsistent with the decisions of this Court in *Eibel Process*

Co. v. *Minnesota & Ontario Paper Co.*, 261 U. S. 45; *Tilghman* v. *Proctor*, 102 U. S. 707; *Providence Rubber Co.* v. *Goodyear*, 9 Wall. 788; *Carnegie Steel Co.* v. *Cambria Iron Co.*, 185 U. S. 403; *McClurg* v. *Kingsland*, 1 How. 202; and *Mowry* v. *Whitney*, 14 Wall. 620. In each of these cases the heart of the invention lay in the discovery of a scientific principle or law of nature. After that discovery was disclosed the application to the patented process was obvious.

3. The decision of the Court of Appeals for the Seventh Circuit is contrary to the decisions of the Courts of Appeals for the Second and Ninth Circuits.

Schering Corp. v. *Gilbert*, 153 F. 2d 428 (C. A. 2).
Vitamin Technologists v. *Wisconsin Alumni Research Foundation*, 146 F. 2d 941, 949 (C. A. 9).

Prayer:

WHEREFORE, your petitioner respectfully prays that a writ of certiorari be issued to the Court of Appeals for the Seventh Circuit to the end that this cause may be reviewed and determined by this Court, that the judgment of the Court of Appeals for the Seventh Circuit be reversed, and that petitioner be granted such other and further relief as may be proper.

Respectfully submitted,

THE DAVISON CHEMICAL CORPORATION,
By HAROLD W. NORMAN,
Its Attorney.

BRIEF IN SUPPORT OF PETITION.

THE OPINIONS OF THE COURTS BELOW.

The District Court did not render an opinion. The reasons for its decision are stated in its orders found at pages 54 and 55 of the record. The opinion of the Circuit Court of Appeals appears at page 64 of the record; it is reported at 179 F. 2d 793.

JURISDICTION.

The Court has jurisdiction to issue the writ of certiorari requested under Sec. 1254 of Title 28 of the United States Code. The judgment of the United States Circuit Court of Appeals to review which the writ is requested was entered February 8, 1950. A petition for rehearing was duly filed and that petition was denied March 7, 1950.

STATEMENT OF THE CASE.

The petition for the writ of certiorari contains a summary of the material facts necessary to an understanding of the reasons relied upon for the allowance of the writ as well as a statement of the questions involved in the case.

SPECIFICATION OF ERRORS.

1. The Court of Appeals erred in holding the Connolly patent invalid.

2. The Court of Appeals erred in holding that the invention of a process is to be tested after assuming that all scientific principles or laws of nature involved in the invention are known to the public.

SUMMARY OF ARGUMENT.

1. The case is of fundamental importance in the law of patents.

2. The decision of the Court of Appeals is inconsistent with decisions of this Court.

3. The decision of the Court of Appeals is in conflict with the decisions of other Courts of Appeals.

ARGUMENT.

I.

The Case Is of Fundamental Importance in the Law of Patents.

The effect of the decision of the Court of Appeals is to deny the validity of any patent for a chemical process, and, if the argument of the Court is carried to its logical conclusion, to deny the validity of any process or product patent and of most, if not all, mechanical patents. Every chemical reaction, every combination of chemicals, and every modification of a chemical by heat, pressure, electrolysis, dilution, concentration, or atomic bombardment is predicated upon a scientific principle or law of nature. When that principle is fully explained to a skilled worker in the field, including advice as to the step in the process at which the principle is to be applied, the application of the principle requires no inventive genius. Thus, if the test of invention of a process is to be applied, as the Court of Appeals holds, only to the means there can be no valid patent for a process.

This theory of the Court of Appeals is clearly stated:

> "What the skilled scientist, having been fully informed of the newly discovered scientific fact, would have done, would amount only to the exercise of ordinary skill in his profession. Knowing that the porosity and density of the gel varies directly in relation to the temperature of the rinsing water, was it invention for Connolly to apply the law of nature as he did?" (R. 66).

The importance of the role which the discovery of a scientific principle or law of nature plays in a patent was

recognized by this Court when it granted a writ of certiorari to review the decision of this same Court of Appeals for the Seventh Circuit in *Kalo Inoculant Co.* v. *Funk Brothers Seed Co.*, 161 F. 2d 981.

There the question presented by the petition was whether a product patent could be sustained for products of nature merely packaged together.

In these two opinions the Court of Appeals has gone from one extreme to the other. In the *Kalo* case, it sustained a patent for the mere discovery that certain bacteria strains, existing in nature, were not mutually inhibitory and hence could be included in a single package; in the instant case, it subtracts from the inventive concept the discovery that the pore size of a manufactured product could be controlled by the temperature of the water used to wash it at a particular stage in the process. In the one case the Court of Appeals sustains a patent for the mere discovery of a law of nature; in the other it ignores that discovery entirely. To sustain this full swing of the judicial pendulum, the Court of Appeals cites the reversing decision of this Court in the *Kalo* case, 333 U. S. 127. The decision of the Court of Appeals, in the eyes of the patent bar, owners of patents, and inventors, will therefore be looked upon as dictated by this Court.

A decision of such momentous consequences in the field of patent law should not be allowed to become final and to carry with it the implication of endorsement by this Court without consideration of the case upon its merits by this Court.

II.

The Decision of the Court of Appeals Is Inconsistent With Decisions of This Court.

This Court has frequently upheld the validity of process patents. In doing so it has recognized that the heart of the invention is the discovery of the scientific principle or law of nature that is the basis of the process. It is there that the Court must look to find the "flash of genius" that justifies a patent. In *Eibel Process Co.* v. *Minnesota & Ontario Paper Co.*, 261 U. S. 45, 68, the discovery was that the rippling of paper stock could be prevented by increasing the initial speed of the stock so that it approximated the speed of the rolls upon which it was fed. This Court said:

> "The invention was not the mere use of a high or substantial pitch to remedy a known source of trouble. I was the discovery of the source not before known and the application of the remedy for which Eibel was entitled to be rewarded in his patent."

Other process cases in which the application of the invention was obvious after the discovery of the scientific principle are:

Tilghman v. *Proctor*, 102 U. S. 707: Hot water and pressure will separate fat acids and glycerine from animal fat.

Providence Rubber Co. v. *Goodyear*, 9 Wall. 788: India rubber can be cured by subjecting it to a high degree of artificial heat.

Carnegie Steel Co. v. *Cambria Iron Co.*, 185 U. S. 403: Substantial uniformity from a plurality of blast furnaces can be maintained by using a common dominant pool.

McClurg v. *Kingsland*, 1 How. 202: The tangential injection of molten metal into a mould gives it a rotary motion and the resulting centrifugal force causes the dross to lie in the center of the casting.

Mowry v. *Whitney*, 14 Wall. 620: Uniform cooling of the thick and thin portions of a railroad wheel can be obtained by reheating the wheels and controlling the rate of cooling.

The Court of Appeals cites *Funk Brothers Seed Co.* v. *Kalo Inoculant Co.*, 333 U. S. 127 and *De Forest Radio Co.* v. *General Electric Co.*, 283 U. S. 664, 685, in support of its theory:

> "He who discovers a hitherto unknown scientific fact or law of nature has no claim to a monopoly of it; if there is to be invention from such a discovery it must come from the application of the law of nature or scientific fact to a new and useful end."

The statement of the Court of Appeals is correct in the sense that patents cannot issue for abstract discoveries of scientific fact. The discovery must be embodied in a process or machine, as it is in the case at bar. But the Court of Appeals departs from the precedents when it goes on to say:

> "The application of the [scientific] law must be novel and inventive in character." (R. 66.)

This does not follow from the *Kalo* and *De Forest* cases. The *Kalo* case did not involve a process patent at all, a fact that is emphasized by this Court, 333 U. S. 127, 136. In that case this Court held that the packaging together of selected strains of several species of bacteria so that the mixture would contain species capable of inoculating different varieties of leguminous plants did not involve invention because there was no interaction between the several species, each of which continued to function individually as though it had been packaged separately.

In the *De Forest* case, the scientific principle which underlay the invention, namely the effect of a high vacuum on the discharge of a vacuum tube had been developed and published by others and the patentee came along with only a means for applying the discovery. It is as though Connolly had disclosed his discovery without applying for a patent and someone else had applied for the patent, merely incorporating Connolly's discovery into a known process.

III.

Conflict With Decisions of Other Courts of Appeals.

The theory of the decision of the Court of Appeals for the Seventh Circuit is opposed to the decisions of the Courts of Appeals for the second and ninth circuits. In *Schering Corp.* v. *Gilbert,* 153 F. 2d 428, 432 (C. A. 2) the Court was considering a patent for a complex chemical product for use in gall bladder radiology. The contention was made that this admittedly new and useful composition of matter was not patentable because the product was a new molecule and any molecule is the inevitable result of the action of so-called laws of nature. In disposing of this contention, the Court of Appeals for the second circuit stated the law exactly contrary to the rule as stated by the Court of Appeals for the Seventh Circuit:

> "If this were wholly true the corollary would be that the process by which a result is reached, involving as it does the application of natural laws, would be likewise unpatentable and that there could be no valid patents for new compositions of matter. Similarly, there could be no valid patents for new machines or for new methods for making them since so-called natural laws of physics, such as those relating to gravity and friction, to mention only two, always play their part. Obviously, such an advanced position cannot be maintained in the face of the patent statute and the multitude of authoritative decisions to the contrary."

In *Vitamin Technologists* v. *Wisconsin Alumni Research Foundation,* 146 F. (2d) 941, 949 (C. A. 9) the invention was based upon the discovery that Vitamin D was added to foods by exposure to the actinic rays of a mercury vapor lamp. As in the case at bar, the statement of the discovery of the scientific principle or law of nature left no room for ingenuity in devising the means to carry it into practice. As pointed out by the Court of Appeals in the case at bar, any scientist, given the benefit of the discovery, could, by trial and error, determine the proper exposure in terms of strength and duration of the rays. The Court sustained the patent saying:

> "Steenbock's claimed inventions include a use of the actinic light rays from the sun or the lamp, but as a part of a process which comprises the preparation of food substances so that all or part of their activatable content will be activated by exposure to such rays. Such process claims no more constitute a claim of monopoly of sunlight, than does the claim of a process patent for the use of a chemically prepared photographing plate or film to be photo chemically activated by light rays constitute a claim of a monopoly of light. As well could it have been said that the claim of the use of the pull of the earth on the weights of the first grandfather's clock constitutes a claim of monopoly of the force of gravity.
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> "The ultra violet rays of the mercury vapor lamp are natural forces, like such rays in the sun's spectrum, in the sense there are no forces but those of nature of which man is a part. But their use when created by a lamp to activate the antirachitic principle in lipoids processed by exposure to the lamp rays, if not anticipated and properly claimed, is as patentable a process as the use for motor power of electricity created by a dynamo though the electricity so created be identical with that of the lightning of an electric storm."

This Court should resolve the conflict between the Court of Appeals for the Seventh Circuit and the Courts of Appeals for the Second and Ninth Circuits.

Respectfully submitted,

HAROLD W. NORMAN,
Attorney for petitioner.